

REMARKS

Summary Of The Office Action & Formalities

Claims 1-9 are all the claims pending in the application. By this Amendment, Applicant is amending claims 1, 5, and 7 and adding new claims 10-18. . No new matter is added.

Applicant thanks the Examiner for acknowledging the claim to foreign priority, but is kindly requested to check box 12(a)(3) on form PTOL-326 confirming that a copy of the certified copy of the priority document was received from the IB.

Applicant also thanks the Examiner for acknowledging receipt and acceptance of the drawings filed on October 4, 2004.

Again, Applicant thanks the Examiner for initialing the references listed on form PTO/SB/08 submitted with the Information Disclosure Statement filed on October 4, 2004.

In accordance with the Examiner's suggestion, Applicant is amending the specification to include headings.

The prior art rejections are summarized as follows:

1. Claims 1-5 and 9 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Garcia (US 5,096,098) in view of Clanet et al. (US 5,624,055).

2. Claims 1 and 6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Lacout (FR 2 772 010) in view of Clanet et al. (US 5,624,055).

Claims 7 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant respectfully traverses the art rejections.

Claim Rejections - 35 U.S.C. § 103

1. Claims 1-5 And 9 Over Garcia (US 5,096,098) In View Of Clanet et al. (US 5,624,055).

In rejecting claims 1-5 and 9 over Garcia (US 5,096,098) in view of Clanet et al. (US 5,624,055), the grounds of rejection state:

Garcia shows a dispenser head (2) comprising a connection sleeve (30), a dispenser orifice (25), a duct (33) connecting the connection sleeve (30) to the dispenser orifice (25) and a press surface (22). The head further comprising a shutter (17) that is housed at least in part in the duct (33), which is resiliently biased by spring means (11) towards the dispenser orifice (25). The shutter (17) includes a contact zone (15) that bears in a resilient leak tight manor against the dispensing orifice (25). The shutter being axially movable in such a means as to withdraw its contact zone [from] the dispensing orifice (25) creating an outlet passageway for the fluid when sufficient pressure is exerted on the press surface (22). The shutter (17) also includes at least one abutment zone (14) that is resiliently biased by the spring means (11) against a fixed support zone (24). Garcia does not disclose that at least one of the dispenser orifice and the contact zone present a frustoconical configuration. However, Clanet et al shows a dispenser head (18) including a shutter (23) and a dispensing orifice (29), the shutter and the dispensing orifice both having frustoconical configurations (figure 4). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention, under the teachings of Clanet et al, to construct the dispensing orifice (25) and shutter (17), of Garcia, with a frustoconical configuration in order to create a better seal between them, for when the dispenser head is not in use.

Regarding claim 2, the abutment zone includes plane abutment surfaces (24) that are situated in a symmetrical manor about the travel axis of the shutter. Regarding claims 3-5, the shutter (17) comprises a plunger pin connected to a shoulder (10), the plunger pin designed to close the dispenser orifice (25) by extending into an outlet section of the duct that defines the support zone and the dispenser orifice (25). The outlet section being formed with guide splines (not shown, but the splines match the

groves 12 on the plunger pin) that projects radially inwards.
Regarding claim 9, the spring means (11) of the dispenser head is made integrally as a single piece with the shutter (17).

Office Action at pages 3-4.

Applicant's traversal of the rejection in view of Garcia and Clanet et al. is taken up below, together with the rejection in view of Lacout and Clanet et al.

2. Claims 1 And 6 Over Lacout (FR 2 772 010) In View Of Clanet et al. (US 5,624,055).

In rejecting claims 1 and 6 over Lacout (FR 2 772 010) in view of Clanet et al. (US 5,624,055), the grounds of rejection state:

Lacout shows a dispenser head (1) comprising a connection sleeve (T), a dispenser orifice (6), a duct (10) connecting the connection sleeve (T) to the dispenser orifice (6) and a press surface (30). The head further comprising a shutter (4) that is housed at least in part in the duct (10), which is resiliently biased by spring means (13) towards the dispenser orifice (6). The shutter (47) includes a contact zone (located on the shutter) that bears in a resilient leak tight manor against the dispensing orifice (6). The shutter being axially movable in such a means as to withdraw its contact zone [from] the dispensing orifice (6) creating an outlet passageway for the fluid when sufficient pressure is exerted on the press surface (30). The shutter (4) also includes at least one abutment zone (located on the shutter) that is resiliently biased by the spring means (13) against a fixed support zone (located on the endpiece 5). Lacout does not disclose that at least one of the dispenser orifice and the contact zone present a frustoconical configuration. However, Clanet et al shows a dispenser head (18) including a shutter (23) and a dispensing orifice (29), the shutter and the dispensing orifice both having frustoconical configurations (figure 4). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention, under the teachings of Clanet et al, to construct the dispensing orifice (6) and shutter (4), of Lacout, with a frustoconical configuration in order to create a better seal between them, for when the dispenser head is not in use. Regarding claim 6, the dispenser head (1) includes a body (45) and a dispenser endpiece (5) connected to the body, the endpiece (5) forming the duct (10) and the dispenser orifice (6).

Office Action at pages 4-5. Applicant respectfully traverses.

Claim 1 covers a dispenser head including a shutter housed in a dispensing duct. This shutter is resiliently biased by spring means and includes in combination (i) a contact zone that bears in resilient leaktight manner against the dispenser orifice, one of the contact zone and the dispenser orifice having a frustoconical configuration and (ii) an abutment zone that bears against a fixed support zone.

As explicitly specified in present claim 1, such an abutment zone takes up a portion of the thrust force generated by the spring means so that the contact zone bears with a constant limited force against the dispenser orifice. Consequently, combination of features avoids having the plunger pin (contact zone) pressed too far into the dispenser orifice and thus jammed in the orifice (*see* Applicant's specification at page 3, line 4 through line 20). Therefore, this combination is particularly advantageous, on the one hand, in order to avoid a violent and sudden dispensation of the fluid product and, on the other hand, to prevent the repeated friction between the plunger pin and the dispenser orifice responsible for the wearing of these structures that can result in loss of leaktightness at the orifice.

These technical features co-operate together so as to provide a synergetic effect and the recited combination can thus not be simply regarded as a juxtaposition of distinct technical features.

In particular, the applied references, Garcia and FR '010, each discloses a plunger pin or shutter that establishes with a dispenser orifice a cylinder to cylinder contact. As shown in the

figures of these documents, it is common in such structures to have an abutment zone that is extremely close to the contact zone in such a shutter.

Clanet et al. discloses a shutter 23 having a tip 31 that serves to close the dispensing orifice. As shown in the figures, the tip 31 and the corresponding dispensing orifice both have a frustoconical configuration.

One skilled in the art would have understood that the shutter disclosed in Clanet et al. is a strict alternative to the shutters disclosed in Garcia and FR '010. Their function is clearly and solely to seal the dispensing orifice. They have no force limiting function.

Indeed, in view of the teachings of Clanet et al., it is clear and obvious that the shutter disclosed in this document can only be seen as an alternative of the shutters shown in the other two applied references. The abutment zones in Garcia and FR '010 are immediately upstream from the dispenser orifice, and practically a part of the contact zone. This extremely short distance between the abutment zone and the contact zone would necessarily imply significant and non-obvious changes to the shutter and/or to the structure serving as fixed support zone (cover 2 in Garcia and nozzle 5 in FR'010). Such changes are thus a proof of the novelty and non-obviousness of present claim 1.

Accordingly, even if, assuming for the sake of argument, that one skilled in the art would have considered using the shutter disclosed in Clanet et al., the skilled artisan would have at most replaced the entire structure, as there is no motivation or suggestion in any of the applied patents to *pick and choose* only certain features.

In this regard, Applicant notes the Federal Circuit's admonition that the motivation in the prior art to modify the reference or to combine reference teachings must be clearly and specifically taught or suggested in the prior art. In *In re Lee*, the Federal Circuit stated that the USPTO is held to a rigorous standard when trying to show that an invention would have been obvious in view of the combination of two or more references. *In re Lee*, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002), *citing, e.g., In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999) ("Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references.").

The Federal Circuit went on to emphasize that the "need for specificity pervades this authority." *In re Lee* at 1433 (emphasis added) (*citing In re Kotzab*, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) ("particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed").

The current grounds of rejection do not satisfy the Federal Circuit's rigorous standard for demonstrating that the claimed invention would have been obvious in view of the applied art.

In view of at least the foregoing, claim 1 and its dependent claims are believed to be allowable and the Examiner is kindly requested to reconsider and withdraw the art rejections.

New Claims

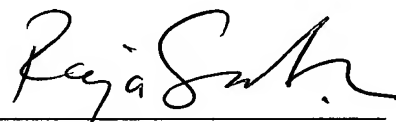
For additional claim coverage merited by the scope of the invention, Applicant is adding new claims 10-18, which are allowable, because the applied art does not teach or suggest the combination of the recited frustoconical contact zone and abutment zone.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Raja Saliba
Registration No. 43,078

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

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CUSTOMER NUMBER

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